

Appl. No. 10/637,221
Reply to Office Action of October 18, 2007
Amendment Dated January 18, 2008

REMARKS

Claims 1-46 and 48-53 stand rejected. Claim 47 was previously cancelled.

Claims 41 and 46 have been amended herein. Therefore, claims 1-46 and 48-53 are pending and at issue.

As an initial matter, this Amendment is being submitted after Final. Applicants are submitting herewith a Request for Continued Examination and therefore request favorable consideration of this Amendment and the remarks made herein.

The Final Office Action has asserted a new grounds of rejection whereby claims 1-46 and 48-53 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Carr in view of Meaney. This rejection should be withdrawn as Carr and Meaney, when each taken alone or in combination, fails to disclose or suggest one or more recited features in the claims.

A brief discussion of the cited art may assist the Examiner in understanding the differences recited in the present claims compared to the cited art. Carr is generally directed to a microwave based waveguide thermo radiation data collection system and method. Tumors are detected by temperature differences found in adjacent skin tissues. Therefore, Carr requires contact with the tissue to determine the temperature profile. Meaney is directed to a tomographic system and method which is operated through a liquid based medium, such as glycerine/water. This method uses an iterative Gauss-Newton image reconstruction methodology.

The present concept is based on, in one form, a moving microwave antenna that collects data at discrete scan points across the entire scan envelope. At each point, the

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antenna transmits energy into the breast and then receives the reflected energy at varying wavelengths that are transferred into time domain. The patient's breast is supported in a fixed position while the patient lies in a prone position to increase tumor detection accuracy. These differences are more specifically addressed in the claims as outlined below.

Claim 1, from which claims 2-27 depend, recites, amongst other structure, a system to support the patient comfortably and to support the patient's breast in a fixed position while the patient lies in a prone position on the table. As properly acknowledged by the Office Action, Carr simply fails to disclose or suggest this structure. To overcome this deficiency, the Office Action proposes combining Meaney with Carr. This proposed combination similarly fails to disclose or suggest the recited features.

Specifically, the Office Action asserts that Meaney teaches accommodating prone-lying patients. However, this is not all that is recited in claim 1. Claim 1 recites supporting the patient's breast in a fixed position while the patient lies in a prone position. Referring to Figure 12 of Meaney, the reference actually discloses not supporting the patient's breast while in a prone position. Instead, Meaney specifically teaches allowing the patient's breast to float, unsupported, in a glycerol water solution while the patient is prone. The reference must be considered as a whole for what is discloses and teaches, including disclosures teaching away from the claimed features. Meaney actually teaches away from what is recited in claim 1, instead specifically teaching that no support be provided such that the patient's breast is free to hang or

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float. Therefore, neither Carr nor Meaney discloses or suggests supporting the patient's breast in a fixed position while the patient is in a prone position. For this reason alone, the rejection of claims 1-27 is improper and should be withdrawn.

Furthermore, the scan system of Carr would be inoperable if the patient were laying in a prone position as the probe 14 is operated by hand above the patient. Carr only discloses a patient in a supine position because of the "vertically adjustable arm 12a that is arranged to overhang table T." (Column 6, lines 50-51). Furthermore, "suspended from arm 12a is radiometric probe 14 having a working end 14a." (Column 6, lines 51-52).

The proposed modification cannot render the reference unsuitable for its intended purpose. M.P.E.P. 2143.01. However, the Office Action's proposed modification/combination of Meaney with Carr would render Carr unsuitable for its intended purpose. The operator of the modified Carr device would be required to sit underneath the table to operate the radiometric probe 14, thus rendering the device unsuitable for its intended purpose.

Moreover, the proposed modification would change this principle operation of the Carr device, which is also impermissible. M.P.E.P. 2143.01. Carr's principle of operation requires the operator to manipulate the probe 14 from above the patient. This would not be possible if Carr were modified as proposed by the Office Action. For these additional reasons, the rejection of claims 1-27 is improper and should be withdrawn.

Claim 28, from which claims 29-40 depend, recites similar features to those presented above with respect to claim 1. Specifically, claim 28 recites a method

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wherein the patient lies prone on a scan table and pressing the patient's breast against a scan plate. For similar reasons to those presented above with respect to claim 1, the rejection of claims 28-40 is also improper and should be withdrawn.

Furthermore, claim 28 recites that the scan plate is microwave and optically transparent. The Office Action asserts that the plate in Carr is microwave transparent, yet neglects to address if the alleged plate is optically transparent. Carr specifically describes the plate as being made of closed foam cell, which is not optically transparent. (Column 9, lines 27-28). Additionally, Carr discloses that the pads may include grids, thus further confirming that the plates are not optically transparent. (Column 9, lines 42-60). Meaney, as discussed above, does not disclose any plate whatsoever, as the patient's breast is specifically left unsupported hanging in a liquid medium. Therefore, for this additional reason, the rejection of claims 28-40 is improper and should be withdrawn.

Claim 41, from which claims 42-45 depend, has been amended to recite orienting a patient's organ on an optically transparent scan plate. As explained above regarding claim 28, each of Carr and Meaney, when taken alone or in combination, fails to disclose or suggest the recited features. Therefore, for this reasons alone, the rejection of claims 41-45 is improper and should be withdrawn.

Additionally, claim 41 recites, amongst other steps, generating a 3D generated scan image of an organ, the scan image having a top planar envelope, generating a photo image of the imprint having the sized field of view and overlaying the photo image on the top planar envelope. Carr fails to disclose or suggest any photo or other optical

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imaging. As discussed above, the patient's breast hangs unsupported in a liquid medium. Therefore, Meaney et al. must utilize a 3-D optical image to properly image the patient's breast. This 3-D image is overlaid on the entirety of a 3-D scan. However, claim 41 recites overlaying the photo image on the top planar envelope, which is not 3-D, but is instead a flat 2-D image. The method recited in claim 41 does not require the complex calculations and computing to create and overlay a 3-D image on a 3-D scan, as disclosed in Meaney. Instead, the 2-D image is overlaid on the top planar envelope, which is also 2-D. Therefore, as Carr and Meaney, each taken alone or in combination, fails to disclose or suggest the method of claim 41, this rejection should be withdrawn.

Claim 46 recites, amongst other features, an examination table having an optically transparent scan plate affixed to the table, similar to claim 28. Therefore, for similar reasons to those presented for claim 28, this rejection should also be withdrawn. Furthermore, Carr fails to disclose the pad, optically transparent or not, affixed to the table, as recited in claim 46. Meaney fails to disclose any scan plate whatsoever. For this additional reason, the rejection should be withdrawn.

Additionally, claim 46 has been amended to recite that the optically transparent scan plate is located at horizontal upper surface of the table. Again, Carr only discloses a patient laying supine with the scan plate located on the patient's chest, away from the table. Meaney does not disclose any scan plate whatsoever. Therefore, for this additional reason, the rejection should be withdrawn.

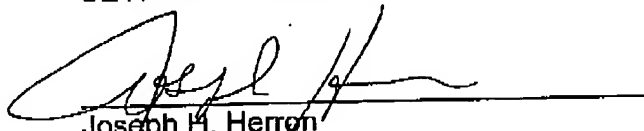
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Claims 11, 12, 13-16 and 39-40 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Carr in view of Haddad. As the above claims depend from either claim 1 or claim 28, Applicants believe that the Examiner intended the rejection to be over Carr in view of Meaney and further in view of Haddad. Regardless, the rejection should be withdrawn. As discussed above, Carr and Meaney, when taken alone or in combination, fails to disclose or suggest one or more features recited in claims 1 and 28. Haddad adds nothing in regards to these deficiencies. Therefore, as claims 11, 12, 13-16 and 39-40 depend from either claim 1 or claim 28, the rejection should be withdrawn and the claims allowed.

Applicants respectfully request entry of the present amendment, reconsideration of the rejection of claims 1-46 and 48-53 and allowance of the case. The Patent Office is authorized to deduct any fees from Deposit Account No. 19-1351 to cover any additional fees. If such a withdrawal is made, please indicate the attorney docket number (33281-400290) on the account statement.

Respectfully submitted,

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